

## Maritime archaeology in Western Australia

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Western Australia enacted the world's first underwater cultural heritage legislation in 1963, that protected any site dating before 1900. This legislation was a result of concern by some finders of several important Dutch East India Company shipwrecks that looting was taking place. The finders appealed to the State Government to protect these sites and as a result what became the Maritime Archaeology Act was passed. The Western Australian Museum was given responsibility for these sites. In the beginning the management was complicated because at that time there were few properly trained maritime archaeologists in the world. Eventually in the early 1970s the Museum established a properly equipped conservation laboratory to deal with artefacts from shipwrecks and a department of maritime archaeology. This paper discusses the development of the work of the Museum on shipwrecks on the Western Australian coast.

**KEYWORDS:** conservation, excavation, legislation, maritime archaeology, survey.

### INTRODUCTION

In 1963, following the discovery of two VOC (*Vereenigde Oost-Indische Compagnie*, Dutch East India Company) shipwrecks, the government of Western Australia amended the Museum Act to protect all shipwrecks that occurred before 1900. This was the first legislation, anywhere in the world, that specifically protected underwater cultural heritage. This legislation, however, was not amended at the whim of government; it was the result of a number of private individuals lobbying the government to protect sites that were being looted. In early 1963, newspapers in Western Australia abounded with reports of looting and conflict on the wreck sites, particularly the *Vergulde Draeck*, which lay just over 100 km north of Perth. Following these events, a group of the finders approached the State Government suggesting that they were prepared to relinquish their rights as finders, provided the Government enacted legislation to protect the sites. The Government agreed, and amended legislation to protect all shipwrecks. This was the first underwater cultural heritage legislation in the world.

### LEGISLATION

The history of the Western Australian Museum's involvement in maritime archaeology started in 1963. It was then that the Western Australian Government passed an amendment to the *Museum Act 1959 (WA)* giving to the Museum responsibility for shipwrecks that occurred prior to 1900, and in the territorial waters of the State. This legislation came about, firstly, as a result of an initiative of the finders of the *Vergulde Draeck* and the *Batavia* (Drake-Brockman 1963; Edwards 1966), who passed their rights, as finders, to the Government; and, secondly, because these sites were being looted and vandalised, causing a public outcry. The Act gave the Museum authority to control and administer the wreck sites on the Western Australian coast. At that time, the concerns were purely for the Dutch shipwrecks and

interest in the post-settlement wreck sites was to come later.

It is not surprising that the legislative pathway was complex as it was without precedent. Remember that this was the first legislation anywhere in the world to protect underwater cultural heritage, reaffirming the position taken in the early Western Australian initiative to protect sites and heritage.

In 1972, after negotiations between the governments of the Netherlands, the Commonwealth and the State, the Australia Netherlands Committee on Old Dutch Shipwrecks (ANCODS) Agreement was signed. Under this Agreement the Netherlands Government, as heir to the United Dutch East India Company (VOC), agreed to transfer to the Australian Government any rights of claim the Netherlands might have to the VOC shipwrecks. The Agreement required that a committee be formed that would oversee the operations of the Museum and that representative collections would be selected for the Netherlands and Commonwealth Governments, with the understanding that the bulk of the collection would remain in the Western Australian Museum (Bolton 1977). In 1973, there was a further legislative change and the historic wreck provisions were removed from the *Museum Act* and incorporated into a new *Maritime Archaeology Act 1973* (Western Australian Consolidated Acts 2010). Meanwhile, concern was being expressed in legal circles about the validity of the State Act, which came to a head finally, in 1976, following a challenge in the case of *Robinson v Western Australian Museum*, when the High Court of Australia ruled that the State Act was invalid (Kennedy 1998). As a result of this decision the Commonwealth's *Historic Shipwrecks Act 1976*, which had been prepared before the High Court challenge was heard, was proclaimed to apply in the waters of Western Australia. In fact, there were a few days between the High Court decision and the proclamation of the new act when the wrecks in Western Australian waters were not protected under any form of legislation. Ironically, this hiatus occurred in the middle of the First Southern Hemisphere Conference on Maritime Archaeology, which was being held in Perth. Following this landmark



decision, the *Historic Shipwrecks Act* proclaimed in the Commonwealth Waters off the Western Australian coast had jurisdiction from the low-water mark to the edge of the Exclusive Economic Zone. Western Australia's *Maritime Archaeology Act* applied in State waters, which included rivers and enclosed bays and sites above the low-water mark. The complexity of the dual jurisdiction, as it applies in Western Australian waters, lies in the fact that the concept of State waters still exists, extending out three nautical miles from the coast.

While the State legislation does not apply to things on or below the seabed, it does apply to things in the water column such as fish. So most State legislation, apart from shipwrecks, now applies out to the three-mile limit and is a curious anachronism. Other Australian States followed a similar process of proclamation, but as they did not have specific legislation covering underwater cultural heritage they enacted 'mirror' legislation to apply to their State waters (legislation that was essentially the same as the Commonwealth Act). In Western Australia, the State Act is vastly different from the Commonwealth legislation. The protection provided by the *Historic Shipwrecks Act 1976* for underwater cultural heritage differed markedly from that offered by the *Maritime Archaeology Act*. Whereas the State Act protected archaeological sites, the Federal legislation was directed towards protecting shipwrecks and associated relics. Initially, the *Historic Shipwrecks Act* gave no specified date to define 'historic' in relation to a shipwreck. To gain protection for a wreck, it was necessary to provide a justification to the Minister as to why the site should be protected. This proved to be unwieldy in implementation, particularly as it caused delays between the discovery and the gazettal, during which period the site was not protected. A number of amendments have been made to the Federal Act since its enactment, including one that introduced a rolling date, so that sites that are older than 75 years are automatically protected. The differences between the State and Federal legislation still create anomalies though, as in the case where a wreck lies partially in Commonwealth waters and partially in State waters. The Commonwealth section (i.e. the part below the low-water mark) is protected if it is more than 75 years old, but the other part, above the low-water mark, will not be protected under the State Act unless its date is earlier than 1900.

Another legislative issue that arose was the question of rewards. The Commonwealth Act leaves the discretion of reward to the Minister with the general attitude that rewards for reporting a site are inappropriate, citing the example we do not usually reward people for obeying the law. The *Maritime Archaeology Act 1973* included a provision to reward the finders of shipwrecks, and the reward process was clearly laid out. However, this provision was not made retrospective; thus, the finders of wrecks already discovered, including the *Batavia*, *Vergulde Draeck*, *Zeewijk* (Edwards 1970), *Zuytdorp* (Playford 1996) and the *Cottesloe Wreck (Elizabeth)*, were not eligible for such a reward. This proved to be a highly contentious and on-going issue, both for the finders and in the perception of the general public, and the matter was only finally resolved in 1994 by the findings and recommendations of the Western Australian Government Select Committee on Ancient Shipwrecks (Pendal 1994).

The Committee recommended that any person who reported their discovery of a wreck site should be rewarded; and that the early finders of wreck sites, who had been deprived of rewards, should be properly acknowledged and rewarded. These findings were incorporated in the Third Schedule (Section 24) of the *Maritime Archaeology Act 1973*, in 1997 (Western Australian Consolidated Acts 2010).

While the legislation is undergoing review at both State and Federal levels, another important development has been the UNESCO Convention on Underwater Cultural Heritage. This international Convention was adopted in November 2001, with WA Maritime Museum Director, Graeme Henderson, in the role of chair of the ICOMOS International Committee on the Underwater Cultural Heritage (ICUCH) which instigated the Convention. The Convention requires that countries enact enabling legislation, which, in the case of Australia, will require all States and the Commonwealth to rewrite their respective Acts. It is, however, a landmark decision in that it clearly indicates that underwater cultural heritage should be protected, reaffirming the position taken in the early Western Australian initiative to protect sites. It is still unfortunate that Australia has been unable to ratify the UNESCO Convention, while many other countries have. The amendments to bring the State up to date have been awaiting Government initiative to start the process for over 20 years. These amendments will also be required in the process of ratifying the Convention.

## 1960S AND THE EARLY BEGINNINGS

Following the enactment of the State legislation, the Museum began to establish an administrative structure to look after the shipwrecks under its jurisdiction (Figure 1). Since there was no similar situation elsewhere in the



Figure 1 Map of selected wreck sites.





Figure 2 *Batavia* wreck site (WA Museum © photo BTA0708).

world that could be used as a model, the Museum initially adopted a holding operation on the sites, rather than starting excavation or salvage. Additionally, there were no trained maritime archaeologists in Australia and only a few European countries had experience in this area; hence there was no precedent for establishing a maritime archaeological programme. In what was acknowledged to be an unsatisfactory situation, the general public complained that nothing was happening, whilst amateur divers felt that they could, and therefore should, do the work. The Museum came under growing criticism over the lack of action (Crawford 1977).

In 1967, Colin Jack-Hinton was appointed as the head of a newly created Division of Human Studies at the Museum; under his direction, resources were acquired and staff recruited. A watch-keeping operation was established on the two most important threatened sites, the *Batavia* (Figure 2) and the *Vergulde Draeck* (Figures 3–5), providing accommodation facilities, boats and diving equipment. The Museum also sought advice on how a maritime archaeological programme should be run. In the late 1960s, a Historic Wrecks Advisory Committee was established to help advise on the direction of the programme and counter some of the criticism the Museum was attracting. This Committee, in its various manifestations, exists today as the Maritime Archaeology Advisory Committee and still meets regularly.

In the late 1960s, G. van der Heide from the IJsselmeerpolder Museum in the Netherlands came to Perth at the invitation of the Museum to advise on how best to manage the programme. Staff were sent to the Netherlands to work with the excavation of the shipwrecks in the polders, but at that time no underwater archaeology was being done in the Netherlands, or for that matter anywhere else in the world except for a few



Figure 3 Complex cave system on *Vergulde Draeck* wreck site cannon leaning upright in background (WA Museum © photo GDA211).



Figure 4 Astrolabe from *Vergulde Draeck* wreck site (WA Museum © photo GDA328).



Figure 5 Beardman jugs and reals of eight from *Vergulde Draeck* wreck site (WA Museum © photo GDA5\_065).

cases. This was the beginning of a long and fruitful cooperation between the Museum and scholars in the Netherlands.

In 1969, Ian Crawford took over as Head of Division of Human Studies. By that time, a limited excavation had started on the *Vergulde Draeck* and in 1970 a joint Museum and University of Western Australia expedition carried out a survey and limited excavation of the *Batavia* wreck site. In 1970, David Ride, the Director of the Museum, made a submission to the Western Australian Government that it provide appropriate support for the maritime archaeological programme. The support was forthcoming and resulted in the appointment of Colin Pearson as Head of the Conservation Laboratory, and the appointment of Jeremy Green in 1971, as Head of the Department of Maritime Archaeology.

### 1970s: THE DEPARTMENT IS ESTABLISHED

With proper conservation facilities and the resources to carry out major excavation projects, the scene was set for a new initiative in maritime archaeology. A custom-built 12 m workboat, the *Henrietta*, was built and new curatorial staff were recruited to complement the existing technical staff. By 1972, the Department numbered about 15 people. They had a new office in Fremantle, alongside the Conservation Laboratory, and there were field stations on Beacon Island, in the Houtman Abrolhos, and at Ledge Point, north of Perth. The first project was a





Figure 6 *Trial* wreck sites showing anchors (WA Museum © photo TRA112).

survey of the *Trial* wreck site (Figure 6) (Green 1977a). (It should be noted that in contemporary documents the name of this ship was spelt four different ways, often two different ways in the same document. I have chosen the first and most common spelling of the name, the others being *Triall*, *Tryal* and *Tryall*.) After the survey of the *Trial* an excavation of the *Vergulde Draeck* site was undertaken (Green 1977b). By the end of the *Vergulde Draeck* excavation, the departmental team was experienced enough in shallow-water surf-zone excavation to start work on the *Batavia*. The *Vergulde Draeck* had been chosen first for excavation, because of its proximity to Perth and because the site was under greater threat than the *Batavia*. The *Batavia*, however, was a much bigger project; not only was the site a lot larger and more complex, but the logistics of working in the remote Houtman Abrolhos was extremely demanding (Drake-Brockman 1963). Work started on the *Batavia* site in December 1972, the first of four excavation seasons (Green 1989). In total, approximately 450 days of fieldwork were logged on the *Batavia* project. During the course of the excavation, it became clear that a large intact section of the ship had survived and it was decided to raise this section for conservation. This inevitably led to the question of where the raised section (measuring some 30 m x 10 m x 6 m) could be housed. Fortunately, Fremantle in the late 1970s was fruitful ground for such a quest. There was a large, derelict heritage building—the Commissariat Building—that was found to have a room of suitable size to house the reconstruction. Indeed, the

building was spacious enough to house a large number of exhibition galleries as well as the respective Departments of Maritime Archaeology and Materials Conservation.

The refurbishment of the Commissariat Building was carried out by the Public Works Department and won numerous heritage awards for the quality of the restoration. The building was officially opened in 1979, housing the restored *Batavia* hull and portico façade and exhibitions of material from the wreck sites investigated by the Department.

At the end of the *Batavia* project, work started on a post-settlement maritime archaeological programme under the direction of Graeme Henderson, who was then a curator in the Department. Initially, when the Museum started its programme in maritime archaeology, the current thinking was that the Dutch wrecks were the most important sites. The later, early 19th century and post-settlement, sites were thought to be relatively insignificant at the time. The Department became increasingly concerned, however, at the public perception that the Museum was not interested in these sites, which was leading to widespread looting of many of them. It was recognised that these sites would prove immensely important to the early European history of Western Australia and of Australia, and a programme of work was developed for them. This started with excavations on the *Eglinton*, followed by the *James Matthews*, *Rapid* and *Lively* (Figures 7, 8).



Figure 7 *Rapid* wreck site showing coins (WA Museum © photo PCA39).



Figure 8 Excavating *James Matthews* site, roofing slats to left of scene (WA Museum © photo JMA54).



In 1974, Scott Sledge became responsible for the wreck inspection programme that monitored reports of wrecks and inspected the sites. In 1978 he led the very successful Wreck Inspection North Coast (WINC) expedition, which examined sites in the far north of the State. The wreck inspection programme was later taken over by Michael McCarthy.

## INTO THE 1980s: DEVELOPMENT AND DIVERSIFICATION

The Department's Dutch wrecks programme did not finish with the excavation, conservation and reconstruction of the *Batavia*. It continued with work on the *Zeewijk* site (Figure 9), where several seasons of excavation and survey were carried out under the direction of Catherina Ingleman-Sundberg. Later, the Dutch wreck programme turned to the *Zuytdorp*, an incredibly difficult site to work (Figure 10).

On another front, McCarthy initiated a programme looking at iron and steam shipwrecks. This led to the First Australian Seminar on the *Management of Iron Vessels and Steam Shipwrecks*, which was held in 1988 (McCarthy 1988). McCarthy's important excavation of the steamship *Xantho* (Figures 11, 12), with the subsequent recovery of the vessel's engine, started yet another interesting and exciting initiative for the Department. The dismantling of the concreted and corroded engine, and its subsequent conservation process, has provided new insights into the study of iron shipwrecks and their conservation.

Land archaeological work associated with maritime activities is another branch of research within the Department. Myra Stanbury has undertaken research of the guano industry in the Abrolhos, as well as studying the whaling industry, particularly at the Norwegian Bay Whaling Station at Point Cloates and pearling in the Monte Bello Islands. Myra's main responsibility has been the management of the Department's artefact collection and research, and publication of sites that the Department has previously worked on. The Department has been involved in numerous land archaeological projects, particularly where they interface with the maritime milieu.

In 1981 Michael McCarthy initiated Australia's first wreck access program, which has since developed into an outreach programme. The objective of such programs is to provide information for the public as well as opportunities for them to look at and enjoy shipwrecks. Through public involvement and introducing the concepts of an 'Underwater Museum' where the wreck sites are the 'show cases' and the ethos is 'please enjoy – look but don't touch', the Department encourages the concept of protecting sites for future generations.

Other avenues for public involvement in maritime archaeology include the Maritime Archaeological Association of Western Australia (MAAWA), an amateur organisation founded in 1974 (Robinson 1977). This Association assists the Department in projects and played a particularly important role in the excavation of the *Batavia* and the other early departmental projects. It also conducts its own programmes and has a long and



Figure 9 Surveying *Zeewijk* site with underwater theodolite (WA Museum © photo ZWA142).



Figure 10 View of Zuytdorp cliffs near wreck site (WA Museum © photo ZUYB08A).



Figure 11 *Xantho* engine after conservation (WA Museum © photo BTA0708).





Figure 12 *Xantho* engine being loaded into conservation tank prior to treatment (WA Museum © photo BTA0708).

Table 1 List of significant Western Australian wreck sites

Name	Date	Place	Country
Trial	1622	Montebello Islands	English East India Co
Batavia	1628	Wallabi Group Abrolhos	VOC
Vergulde Draeck	1656	Ledge Point	VOC
Zuytdorp	1712	North of Kalbarri	VOC
Zeewijk	1727	Pelsaert Group, Abrolhos	VOC
Lively	1810	Rowley Shoals	British, ex French
Rapid	1811	Point Cloates	American
Correio da Azia	1816	Point Cloates	Portuguese
Belinda	1824	Middle Island, Recherche Archipelago	British
James	1830	Cockburn Sound	British
Cumberland	1830	Hamelin Bay	Indian
Thames	1830	Fremantle	British
Emily Taylor	1830	Fremantle	British
Grey's whaleboats	1839	Kalbarri	Australian/American
Lancier	1839	Stragglers	Mauritius
Elizabeth	1839	Cottesloe	British
Samuel Wright	1840	Bunbury	American
North America	1840	Bunbury	American
Persévérant	1840	Dirk Hartog Island	French
James Matthews	1841	Woodmans Point	British
Amelia	1842	Fremantle	British
HMAS Sydney II	1941	Continental Shelf	Australian
HSK Kormoran	1941	Continental Shelf	German

impressive publications record. Another relatively new initiative targeting the public, managed by Corioli Souter, are the Australasian Institute for Maritime Archaeology (AIMA) and Nautical Archaeology Society (NAS) training courses. As well as providing technical training in maritime archaeology, these courses raise awareness about shipwrecks and the issues relating to the preservation of underwater cultural heritage. The Department has played an important role in the Australasian Institute of Maritime Archaeology (AIMA) since it was first established at the Second Southern Hemisphere Conference on Maritime Archaeology in Adelaide in 1983. Taking a leading role in the formative years of the Institute, the Department still regularly produces and edits the annual *AIMA Bulletin*, now in its 30th year of publication.

### THE 1990s

In 1994 the Federal Government announced in its cultural policy statement *Creative Nation* that the Western Australian Maritime Museum would be established as a National Centre of Excellence for Maritime Archaeology. Funding was provided for a three-year period to support a number of projects; the funding ended in 1998.

In January 1998, there were reports from the Shark Bay Shire that a French coin and lead seal had been discovered on the northern part of Dirk Hartog Island. The coin (an *écu* dated 1766) had been located with a metal detector in the area reputed to have been the site of St Aloüarn's annexation of Western Australia for France in 1772. A team, including staff of the Department of Maritime Archaeology, Centre for Archaeology, University of Western Australia, and volunteers, subsequently returned to the site and using a combination of remote sensing and traditional archaeological methods located and then excavated an intact bottle, complete with a lead closure or seal containing another French *écu* dated 1767.

In 1997 reports were received that a grave site on Beacon Island had been discovered and a sword recovered. This site was excavated in 1999 and found to be a mass gravesite containing the bodies of eight people including an infant of less than 3 months old. This finding highlights the potential for Beacon Island, which in contemporary documents was referred to as *Batavia's* Graveyard. It is known that over 125 people were massacred following the loss of the ship (Ariese 2012).

### INTO THE NEW MILLENNIUM

In 2002, the spectacular new Maritime Museum building was opened on Victoria Quay, complementing the Shipwrecks Museum in the Commissariat Building. The new Maritime Museum, evolving from the work of the Department is largely devoted to maritime history, and the Commissariat Building has become a shipwrecks museum devoted to maritime archaeology and conservation.

Further work was carried out at Cape Inscription in 2003 and concentrated on a site survey and further magnetometer work, and an assessment of four-wheel drive damage to the *Persévérant* site, a French whaler lost

on the northeast side of the island in 1841 (Green 2007). In 2004, the *Correio da Azia*, the earliest Portuguese shipwreck in Australia was discovered. It was an advice boat travelling from Lisbon to Macau in 1816 and was wrecked on Ningaloo Reef (Green 2011). Letters in the Lisbon archives include a report of the loss by the Captain and the report of a vessel, the *Emillia*, that was sent to chart Point Cloates, which at that time was a notorious navigational hazard for vessels sailing to China. Previous Museum expeditions failed to locate the site because of adverse weather and the difficulty of searching this reef area with a magnetometer in a regular search pattern. Fugro Airborne Surveys, a Western Australia survey company, agreed to conduct an aerial magnetometer search of the area where the vessel was thought to have been lost. The survey found two sites, one of which was the *Correio da Azia*, the other an as yet unidentified site.

The Deep Water Graveyard southwest of Rottnest Island, was investigated in 2001. UTS Geophysics, a local company, flew an aerial magnetometer survey over a section of the graveyard and produced some astounding results. Eight clear magnetic anomalies were located and an additional survey over the HMAS *Derwent* site showed that this vessel could be detected easily in 200 m of water. The graveyard is host to a wide spectrum of material, from utilitarian barges and dredges to the remains of graceful clipper ships that ended their days as coal hulks in Fremantle harbour before being scuttled. There are a total of 47 identified wrecks in the Rottnest Graveyard.

Much of the work and research of the Department has been published (see for example; Green *et al.* 2004; Henderson 1980, 1986; Henderson & Henderson 1988; McCarthy 2013; Worsley *et al.* 2008, 2012). Other information and reports can be found on the departmental publications website: < <http://museum.wa.gov.au/maritime-archaeology-db/maritime-reports>>.

### The Future

The State government has generously supported maritime archaeology in Western Australia and as a result the WA Museum has a national and international reputation in the field. The Department of Maritime Archaeology provides advice and training in countries throughout the world. In particular maritime archaeological conservation plays an important role in this work, and as described above, the archaeology has to be supported by conservation. Again, the Department of Materials Conservation has a international reputation in research related to the conservation of maritime archaeological material. It is of course the whole process that has to be considered in assessing how underwater cultural heritage is managed in Western Australia. Assessment of the heritage comes first, a careful decision on the merits of excavation, the archaeological excavation, conservation of the material, collection management and ultimately the display of the material and the publication of the work. We are fortunate in having a dedicated museum in Fremantle that can display the results of this programme.

Sadly today the ability to mount large scale excavations like the *Batavia* excavation and others in the



1970s and 1980s are no longer possible. Financial restraints limit the amount of work that can be carried out. However, in 2013 the Museum, in conjunction with the University of Western Australia received an Australian Research Council Linkage Grant to reinvestigate the early work carried out by the Department of Maritime Archaeology. This project which includes and international research team will seek new insights into the sites and the collections using modern technology. This is an exciting project with implications for every maritime archaeologist who has excavated a site. In the mean time, every year new sites are reported to the Museum. Although we know that about 1500 ships were lost on the Western Australian coast only about 300 have so far been found. So we are hoping one day someone will report another *Batavia*!

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